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A41H 37/10, B25C 5/11, B65C 7/00, B65D 85/24, G09F  
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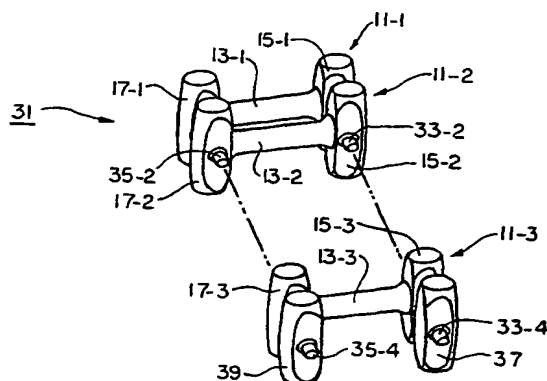
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MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: PLASTIC FASTENER, FASTENER CLIP, FASTENER DISPENSING TOOL AND METHOD OF FASTENING OB-  
JECTS



(57) Abstract: Plastic fastener (11), fastener clip (31), fastener dispensing tool (51), and method of fastening objects; comprises a flexible filament (13), a first transverse bar (15) located at one end of the flexible element (13), a second transverse bar (17) located at the opposite end of the flexible element (13). The fastener clip (31); comprises a plurality of identical fasteners (11-1) (11-3), of the aforementioned type, each of the fasteners being arranged in a parallel, side-by-side, spaced relationship. A connector post (33) connects the first transverse bar (15) of adjacent fasteners (11), and a connector post connects the second transverse bars (17) of adjacent fastener (11). An extra transverse bar (37) is connected by a connector post to the first transverse bar (15), and another extra transverse bar (39) is connected by a connector post to the second transverse bar (17) of the fastener. The tool is a handheld tool for use with the above fastener (11), comprises a casing (53) provided with a needle opening (62), a hollow, slotted needle (93) adapted to receive a transverse bar of the fastener (11); an ejector rod (143) slidably movable back and forth through the hollow, slotted needle (93), an anvil (73) coupled to the casing (53) and extending in front of the opening (62) being positioned so that the hollow, slotted needle (93), when in the extended position, does not extend therebeyond.



**Published:**

— *With international search report.*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**(88) Date of publication of the international search report:**

8 March 2001

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05649

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : Please See Extra Sheet.

US CL : 24 16 R, 30.5 P, 456, 704.1, 704.2 ; 206/338, 343 ; 227/67

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 24 16 R, 30.5 P, 456, 704.1, 704.2, 90.1, 527 ; 206/338, 343 ; 227/67

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y, P	US 6,026,544 A (DESCHENES ET AL) 22 FEBRUARY 2000, SEE THE ENTIRE DOCUMENT	1 - 129
Y	US 5,024,365 A (BOURQUE) 18 JUNE 1991 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 5,321,872 A (MERSER) 21 JUNE 1994 ; SEE THE ENTIRE DOCUMENT.	1 - 129
Y	US 5,321,872 A (MERSER) 21 JUNE 1994 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 3,325,853 A (STROWEIS) 20 JUNE 1967 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 5,810,238 A (KUNREUTHER) 22 SEPTEMBER 1998 ; SEE THE ENTIRE DOCUMENT .	1 - 129



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E* earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*G* document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means	
*P* document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

07 NOVEMBER 2000

Date of mailing of the international search report

13 DEC 2000

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## INTERNATIONAL SEARCH REPORT

 International application No.  
 PCT/US00/05649

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,205,458 A (KUNREUTHER) 27 APRIL 1993 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 5,405,070 A (KUNREUTHER) 11 APRIL 1995 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,456,123 A (RUSSELL) 26 JUNE 1984 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,456,161 A (RUSSELL) 26 JUNE 1984 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,901,854 A (BONE ET AL) 20 FEBRUARY 1990 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,586,609 A (WON) 06 MAY 1986 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 3,733,657 A (LANKTON) 22 MAY 1973 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,534,464 A (LANKTON) 13 AUGUST 1985 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,660,718 A (KATO ET AL) 28 APRIL 1987 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 5,593,033 A (KUNREUTHER) 14 JANUARY 1997 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 5,463,799 A (GRAHAM) 07 NOVEMBER 1995 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 3,103,666 A (BONE) 17 SEPTEMBER 1963 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 3,494,004 A (BONE) 10 FEBRUARY 1970 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,417,656 A (KATO) 29 NOVEMBER 1983 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 4,533,076 A (BOURQUE) 06 AUGUST 1985 ; SEE THE ENTIRE DOCUMENT .	1 - 129

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/05649

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,039,078 A (BONE) 02 AUGUST 1977 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 5,683,025 A (GRENDOL) 04 NOVEMBER 1997 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	US 5,772,073 A (DESCHENES) 30 JUNE 1998 ; SEE THE ENTIRE DOCUMENT .	1 - 129
Y	AU 0,243,745 A (SZENTAL) 07 MARCH 1963 ; SEE THE ENTIRE DOCUMENT .	1 - 129

**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US00/05649

**A. CLASSIFICATION OF SUBJECT MATTER:**  
**IPC (7):**

A44B 21/00 ; A41H 37/10 ; B25C 5/11 ; B65C 7/00 ; B65D 85/24 ; G09F 3/08

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

RECD 19 SEP 2001

WIPO PCT

14


Applicant's or agent's file reference S1937CIPPCT	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/116)
International application No. PCT/US00/05649	International filing date (day/month/year) 02 MARCH 2000	Priority date (day/month/year) 02 MARCH 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant AVERY DENNINSON CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 02 OCTOBER 2000	Date of completion of this report 22 AUGUST 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer  VICTOR SAKRAN
Facsimile No. (703) 305-3230	Telephone No. (703) 308-2224

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/05649

**I. Basis of the report****1. With regard to the elements of the international application:\***☒ the international application as originally filed☒ the description:

pages 1-30 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

☒ the claims:

pages 31-50 , as originally filed  
pages NONE , as amended (together with any statement) under Article 19  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

☒ the drawings:

pages 1-16 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

☒ the sequence listing part of the description:

pages NONE , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☒ The amendments have resulted in the cancellation of:**

- ☒ the description, pages none  
☒ the claims, Nos. none  
☒ the drawings, sheets/fig none

**5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.



## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/05649

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. statement**

Novelty (N)	Claims	<u>1-129</u>	YES
	Claims	<u>none</u>	NO
Inventive Step (IS)	Claims	<u>24-59, 76-125, 128 and 129</u>	YES
	Claims	<u>1-23, 60-75, 126 and 127</u>	NO
Industrial Applicability (IA)	Claims	<u>1-129</u>	YES
	Claims	<u>none</u>	NO

**2. citations and explanations (Rule 70.7)**

Claims 1-23, 60-75, 126 and 127 lack an inventive step under PCT Article 33(3) as being obvious over Merseur U. S. Patent No. 5,921,872 and/or Bone U. S. Patent No. 3,494,004 in view of Bone U. S. Patent No. 3,103,666. Merseur and/or Bone '004 both of whom disclose the general combination claimed of a plastic fastener comprising a flexible filament having a first end and a second end in combination with an inserting element disposed at the first end of said fastener and adapted to be inserted through a garment, once inserted therethrough, to be retained by said garment, and a retaining element disposed at the second end of said fastener, wherein, said retaining element is dimensioned to prevent the flexible filament from being pulled completely through the garment; see Figures 1-4, in Merseur and Figures 1-3, in Bone '004, except for the particular use of a dispensing tool for said plastic fastener. Bone '666 teaches the use of a plastic dispensing tool for a plastic fastener 1-7, and the entire document. It would have been obvious to one having ordinary skill within the art at the time the invention was made to provide the plastic fastener in Merseur and/or Bone '004 with a fastener dispensing tool in the manner taught and disclosed by Bone '666, especially since such modification involves only routine skill within the art. As to the method as recited in claims 60-75, it would obviously and inherently be within the scope of the references as applied. Furthermore, the particular range of dimensions as recited in the claims is considered no more than a matter of design choice obvious to one having ordinary skill in the art at the time the invention was made. Moreover, the particular type of material used is also considered no more than a matter of design choice within the skill in the art, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Claims 24-59, 76-125, 128 and 129, meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest Applicant's claimed device.

(Continued on Supplemental Sheet.)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/05649

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**CLASSIFICATION:**

The International Patent Classification (IPC) and/or the National classification are as listed below:  
IPC(7): A44B 21/00 ; A41H 37/10 ; B25C 5/11 ; B65C 7/00 ; B65D 85/24 ; G09F 3/08 and US Cl.: 24 16 R, 30.5 P, 456, 704.1, 704.2 ; 206/338, 343 ; 227/67

**V. 2. REASONED STATEMENTS - CITATIONS AND EXPLANATIONS (Continued):**

----- NEW CITATIONS -----

NONE

## PATENT COOPERATION TREATY

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 14 March 2001 (14.03.01)	
<b>International application No.</b> PCT/US00/05649	<b>Applicant's or agent's file reference</b> 81337CIPPCT
<b>International filing date</b> (day/month/year) 02 March 2000 (02.03.00)	<b>Priority date</b> (day/month/year) 02 March 1999 (02.03.99)
<b>Applicant</b> RAYMOND, Jeffrey, A. et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
 02 October 2000 (02.10.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	<b>Authorized officer</b> Pascal Piriou Telephone No.: (41-22) 338.83.38
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